HTML-Formatted Data Streams Pilot: Implementation Guide

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1. Introduction

The need to exchange information between the Federal Government and the research community is critical. Traditionally, research institutions and the Federal Government have communicated by mailing preprinted business forms. Now, the Office of Policy for Extramural Research (OPERA) at the National Institutes of Health (NIH) is re-engineering the extramural grant administration process. Central to this re-engineering effort is the concept of a "Commons," which serves as an electronic mall where the grantee community can conduct business electronically with NIH. The primary technologies comprising the Commons are those technologies which enable electronic research administration via the Internet.

One such enabling technology is the Hypertext Markup Language (HTML). HTML is a simple markup system used to create hypertext documents which are portable from one platform to another. HTML-related technologies are vital to the Commons, because a key component of the Commons development is the manner and format in which users can submit data to the NIH via the Commons.

As an initial step in automating the grant administration process, TYC Associates, Inc. (TYC), in conjunction with Turner Consulting Group (TCG), has developed a pilot system [1] which uses HTML-formatted data streams [2] as specified by Logistics Management Institute (LMI) to communicate grant application data. This paper, "HTML-Formatted Data Streams: Implementation Guide" specifies all the information required by a grantee organization to encode competitive grant application data as an HTML-formatted data stream, and to communicate this data stream to the NIH HTML pilot system.

1.1 Scope

The NIH HTML pilot system is being implemented using a phased approach. Phase one is currently in effect, and is defined by the following restrictions:

- Only the application face page, scientific abstract, budget, and the research project specific aims portions are supported.
- Only test data is accepted.
- Only Hypertext Transfer Protocol (HTTP) file uploads can be used to transmit the HTML-formatted data streams.

1.2 System References

1. *HTML-Formatted Data Streams Pilot Requirements Document.* Version 0.8. TYC Associates, Inc. Feb 28, 1997. TYC Document ID TYC-ERA-0011-0101.08.
2. *HTML Data Element Names for the 194 Transaction Set*. LMI Excel spreadsheet.
3. *Table Extensions for the Common Gateway Interface.* Buccigrossi, Robert; Turner Consulting Group. February 4, 1997.

1.3 Terms and Abbreviations

HTML	Hypertext Markup Language
HTTP	Hypertext Transfer Protocol
LMI	Logistics Management Institute
NIH	National Institutes of Health
OPERA	Office of Policy for Extramural Research
TBD	To Be Determined
URL	Uniform Resource Locator

1.4 Organization of Document

This document, "HTML-Formatted Data Streams: Implementation Guide", contains three major sections. Section 1 introduces the paper. Section 2 defines the HTML-formatted data stream syntax, and section 3 describes how the grantee community can communicate with the HTML pilot system.

This paper also contains two appendices. Appendix A provides a sample PHS 398 application that is *filled-in* with test data. Appendix B presents the HTML-formatted data stream that corresponds to the test data specified in appendix A.

2. HTML-Formatted Data Stream Syntax

The syntax for HTML-formatted data streams is based on the data stream produced when a user *submits* (i.e., selects the *submit* button on) a Web form. Upon submission of a Web form, a data stream is generated such that the information input by the user is represented by a sequence of *key/value* pairs. The *key* portion is the variable name assigned by the Web form creator. The *value* portion is the information entered by the user submitting the form.

An example helps clarify this concept. Assume that a Web form contains a text box for entering a person's last name, that the form creator assigns the variable name*Name_Last*

to the text box, and that the user enters the name *Dogbert* in the text box. When the user submits the form, the resulting data stream for that text box is:

Name_Last=Dogbert

As seen from this trivial example, the HTML-formatted data stream syntax has two components:

- a set of permitted variable names (which will be referenced as *data elements* in this paper), and
- a set of rules for combining these data elements (i.e., a grammar)

2.1 Supported Data Elements

The set of permitted data elements has been developed by Logistics Management Institute (LMI). Due to the informal nature of the LMI spreadsheet, this paper specifies all relevant information developed by LMI; thus, the reader need not reference the LMI spreadsheet in addition to this guide.

LMI categorized the list of data elements into *Entities*. For example, all data elements relevant to a person are specified in the *INDIVIDUAL_ENTITY*. The reader is advised to view these entities as tables in a relational database. This means that grantee organizations must map data from their grant application databases to the corresponding LMI entities and data elements. On the receiving side, NIH must map from the LMI entities and data elements to the corresponding tables and columns comprising the Commons database.

The remainder of section 2.1 provides the LMI entities and data elements supported by phase one of the HTML pilot system.

2.1.1 Supported Entities

The following table specifies the LMI entities supported by phase one of the HTML pilot system. For each entity, a *sort number* is listed. This sort number performs two functions. First, it provides a numeric means to identify the entity element. Second, it specifies the range of numbers for the data elements comprising the entity. For example, the sort number for the INDIVIDUAL_ENTITY is 100. The range of sort numbers for the data elements comprising the INDIVIDUAL_ENTITY is 101 to 199. Note that all sort numbers, entity names, and data element names are unique.

The following table also provides the entity name and whether duplicates are allowed. Allowing duplicates is analogous to allowing multiple rows for a database table.

Table 2-1. Supported LMI Entities

Sort Number	Entity Name	Duplicates Allows
0	APPLICATION_ENTITY	No
100	INDIVIDUAL_ENTITY	Yes
200	ORGANIZATION_ENTITY	Yes
300	PROJECT_ENTITY	Yes
400	RESEARCH_SUBJECT_GROUP_ENTITY	No
600	ANIMAL_SUBJECTS_ENTITY	No
700	BUDGET_ENTITY	Yes

2.1.2 Supported APPLICATION_ENTITY Data Elements

The following table specifies the LMI data elements in the APPLICATION_ENTITY supported by phase one of the HTML pilot system. If the APPLICATION_ENTITY is viewed as a database table, each data element is analogous to a column in the table.

For the APPLICATION_ENTITY (as well as all other entities), the following information is provided:

1. Sort # - a number that identifies the data element.
2. Data Element Name - the name of the data element.
3. Data Type - the type of the data element. The following types are used:
   - AN — Alphanumeric
   - DATE — Format is MMDDCCYY (e.g., Jan 13, 2001 is 01132001)
   - DOLLAR — Monetary Amount; Format is nnnnnn.nn (if decimal point is not present, maximum value is 8 digits)
   - ID — Identifier (Alphanumeric, but values are predefined)
   - NUM — Numeric (Treated as number or string, depending on context)
   - Y/N — Boolean; Value is 'Y' or 'N'
4. Data Min Length - the minimum number of characters permitted for the data element.
5. Data Max Length - the maximum number of characters permitted for the data element
6. Dupl - a boolean indicating whether the data element can have multiple values.
7. PHS 398 Counterpart (and related notes) - the page and (optionally the) number from the 398 that corresponds to the data element. All 398 page references are indicated using italics. This column also includes any notes pertaining to the data element.

This guide adheres to the data element attributes specified by LMI as closely as possible. All data element names, sort numbers, and data types match the LMI specification exactly. For some data elements, however, the "Data Min Length", "Data Max Length", and "Dupl" values specified in this guide limit the values specified by LMI.

Table 2-2. Supported APPLICATION_ENTITY Data Elements

Sort #	Data Element Name	Data Type	Data Min Length	Data Max Length	Dupl	PHS 398 Counterpart (and related notes)
5	Agency_Req_for_Application_ID	AN	1	10	No	*AA*, #2 (Number)
6	Agency_Reqst_for_App_Title	AN	1	50	No	*AA*, #2 (Title)
10	Submitting_Organization_DUNS	ID	9	15	No	Indicate grantee DUNS number
11	Fed_Agncy_ID_for_Sub_Org	AN	1	10	No	Indicate grantee IPF code
12	Application_Type	ID	2	2	No	"S4" new application "6C" competitive renewal "6R" revision of application
13	Pre-application_Number	ID	1	30	No	*II*, use with Sort #12 (6R)
15	Application_Date	DATE	8	8	No	*AA*, #16 (Date)
18	Applicable_Fed_Award_No	AN	1	30	No	*II*, use with Sort #12 (6C)
21	Auth_Off_Name_Last	AN	2	30	No	*AA*, #14 (Name)
22	Auth_Off_Name_First	AN	1	25	No	*AA*, #14 (Name)
23	Auth_Off_Name_Middle	AN	1	1	No	*AA*, #14 (Name)
24	Auth_Off_Name_Prefix	AN	1	10	No	*AA*, #14 (Name)
25	Auth_Off_Name_Suffix	AN	1	5	No	*AA*, #14 (Name)
32	Auth_Off_Street_Address1	AN	1	35	No	*AA*, #14 (Address)
33	Auth_Off_Street_Address2	AN	1	35	No	*AA*, #14 (Address)
34	Auth_Off_City	AN	1	30	No	*AA*, #14 (Address)
36	Auth_Off_State	ID	2	2	No	*AA*, #14 (Address)
37	Auth_Off_Zip	ID	3	9	No	*AA*, #14 (Address)
40	Auth_Off_Title	AN	1	30	No	*AA*, #14 (Title)
41	Auth_Off_Telephone_Number	NUM	10	16	No	*AA*, #14 (Phone)
42	Auth_Off_Facsimile_Number	NUM	10	16	No	*AA*, #14 (FAX)
43	Auth_Off_Email_Address	AN	7	80	No	*AA*, #14 (E-Mail Address)
50	Admin_Off_Name_Last	AN	2	30	No	*AA*, #13 (Name)
51	Admin_Off_Name_First	AN	1	25	No	*AA*, #13 (Name)
52	Admin_Off_Name_Middle	AN	1	1	No	*AA*, #13 (Name)
53	Admin_Off_Name_Prefix	AN	1	10	No	*AA*, #13 (Name)
54	Admin_Off_Name_Suffix	AN	1	5	No	*AA*, #13 (Name)
58	Admin_Off_Street_Address1	AN	1	35	No	*AA*, #13 (Address)
59	Admin_Off_Street_Address2	AN	1	35	No	*AA*, #13 (Address)
60	Admin_Off_City	AN	1	30	No	*AA*, #13 (Address)
62	Admin_Off_State	ID	2	2	No	*AA*, #13 (Address)
63	Admin_Off_Zip	ID	3	9	No	*AA*, #13 (Address)
66	Admin_Off_Title	AN	1	30	No	*AA*, #13 (Title)
67	Admin_Off_Telephone_Number	NUM	10	16	No	*AA*, #13 (Phone)
68	Admin_Off_Facsimile_Number	NUM	10	16	No	*AA*, #13 (FAX)
69	Admin_Off_Email_Address	AN	7	80	No	*AA*, #13 (E-Mail Address)

2.1.3 Supported INDIVIDUAL_ENTITY Data Elements

The following table specifies the data elements in the INDIVIDUAL_ENTITY supported by phase one of the HTML pilot system. The INDIVIDUAL_ENTITY is used to specify:

- the Principal Investigator (PI) (page AA #3)
- key persons (page BB, KEY PERSONNEL)
- personnel in the budget (page DD, PERSONNEL)

For the PI, NIH captures all data elements comprising the INDIVIDUAL_ENTITY. The "PHS 398 Counterpart" column in the following table specifies information for the PI.

For key persons (not the PI), NIH only captures the following data elements:

- 101-106 (name/ID information) and 110-111 (organization information)

For personnel in the budget (not key persons), NIH only captures the following data elements:

- 101-106 (name/ID information)

Table 2-3. Supported INDIVIDUAL_ENTITY Data Elements

Sort #	Data Element Name	Data Type	Data Min Length	Data Max Length	Dupl	PHS 398 Counterpart (and related notes)
101	Name_Last	AN	1	30	No	*AA*, #3a
102	Name_First	AN	1	25	No	*AA*, #3a
103	Name_Middle	AN	1	1	No	*AA*, #3a, middle initial only
104	Name_Prefix	AN	1	10	No	*AA*, #3a
105	Name_Suffix	AN	1	5	No	*AA*, #3a
106	Social_Security_Number/ID	AN	9	9	No	*AA*, #3c
110	Emp_Org_Duns	ID	9	15	No	Indicate organization DUNS number for PI
111	Emp_Org_Name1	AN	1	35	No	*AA*, #3e
113	Emp_Org_Address1	AN	1	35	No	*AA*, #3e
114	Emp_Org_Address2	AN	1	35	No	*AA*, #3e
115	Emp_Org_City	AN	1	30	No	*AA*, #3e
117	Emp_Org_State/Province	ID	2	2	No	*AA*, #3e
118	Emp_Org_Zip/Postal_Code	ID	3	9	No	*AA*, #3e
121	Emp_Org_Maj_Subdiv	AN	1	30	No	*AA*, #3g
122	Emp_Org_Department	AN	1	30	No	*AA*, #3f
123	Position_Title	AN	1	40	No	*AA*, #3d
124	Telephone_Number	NUM	10	16	No	*AA*, #3h
125	Facsimile_Number	NUM	10	16	No	*AA*, #3h
126	Email_Address	AN	7	80	No	*AA*, #3e
141	Degree_Description	AN	2	5	Yes	*AA*, #3b

NOTES:

1. Each person specified by the INDIVIDUAL_ENTITY must be uniquely identifiable. For phase one of the HTML pilot, this can be accomplished using Social_Security_Number/ID (106) or by the combination ofName_Last, Name_First, and Name_Middle (101-103).
2. Multiple degrees (141) can be specified for the PI. Use 106 to associate the additional degrees with the appropriate individual (see section 2.2.2).
3. A labor category with no associated name (e.g., technician or TBD) is handled as follows. Add a sequence number to labor category (e.g., TBD1, TBD2) and specify the labor category as the Name_Last (101) data element. The sequence number is used to ensure that the individual is uniquely identified.

2.1.4 Supported ORGANIZATION_ENTITY Data Elements

The following table specifies the data elements in the ORGANIZATION_ENTITY supported by phase one of the HTML pilot system. The ORGANIZATION_ENTITY is used to specify:

- the APPLICANT ORGANIZATION (page AA #9)
- PERFORMANCE SITES (page BB)

For the APPLICANT ORGANIZATION, NIH captures all data elements comprising the ORGANIZATION_ENTITY. The "PHS 398 Counterpart" column in the following table specifies information for the applicant organization.

For PERFORMANCE SITES, NIH only captures the following data elements:

- 205, 209, and 211 (name, city, and state of organization)

Table 2-4. Supported ORGANIZATION_ENTITY Data Elements

Sort #	Data Element Name	Data Type	Data Min Length	Data Max Length	Dupl	PHS 398 Counterpart (and related notes)
201	Organization_DUNS	ID	9	15	No	Indicate DUNS number for applicant organization
205	Organization_Name2	AN	2	40	No	*AA*, #9 (Name)
207	Organization_Street_Address1	AN	1	35	No	*AA*, #9 (Address)
208	Organization_Street_Address2	AN	1	35	No	*AA*, #9 (Address)
209	Organization_City	AN	1	30	No	*AA*, #9 (Address)
211	Organization_State/Province	ID	2	2	No	*AA*, #9 (Address)
212	Organization_Zip	ID	3	9	No	*AA*, #9 (Address)
214	Organization_Type	ID	2	2	No	*AA*, #10 (see Note 2)
215	Organization_Congress_District	AN	2	2	No	*AA*, #12
216	Employer's_Identification_No	AN	12	12	No	*AA*, #12

NOTES:

1. Use 201 to associate organization data elements (address, etc.) with the submitting organization identified in the APPLICATION_ENTITY (i.e., 201 and 10 must be the same for the organization submitting the grant application).
2. The permitted *two-character* codes for Organization_Type (214) are:

"2R"	(Federal)	"A8"	(Private Nonprofit)
"2F"	(State)	"B9"	(General)
"C6"	(Local)	"21"	(Small Business)

2.1.5 Supported PROJECT_ENTITY Data Elements

The following table specifies the data elements in the PROJECT_ENTITY supported by phase one of the HTML pilot system.

Table 2-5. Supported PROJECT_ENTITY Data Elements

Sort #	Data Element Name	Data Type	Data Min Length	Data Max Length	Dupl	PHS 398 Counterpart (and related notes)
301	Project_Title	AN	1	81	No	*AA*, #1
310	Duration	NUM	1	2	No	Number of months in project Used with 312 to calculate *AA*, #6 (Through)
312	Estimated_Start_Date	DATE	8	8	No	*AA*, #6 (From)
321	Project_Org_Role	ID	2	2	Yes	9P, Principal Investigator 9K, Key Person (Not PI) EY, Non-Key Person
330	Participating_Ind_SSN/ID/or_Name	AN	1	58	Yes	Use to link 331-333 with an individual.
331	Project_Role	ID	2	30	Yes	*DD*, Role on Project
332	Level_of_Effort	NUM	1	3	Yes	*DD*, % Effort on Project
333	Appointment_Months	NUM	1	2	Yes	*DD*, Type Appt. (Months)
350	Project_Abstract	AN	1	4M	No	*BB*, Description
352	Research_Plan	AN	1	4M	No	Indicate the Research Plan Specific Aims

NOTES:

1. 331-333 can be specified for each individual on the project.
2. Use 330 to associate 331-333 with an individual.
3. For phase one of the HTML pilot, use 330 to specify the individual's name, formatted as "Name_Last+Name_First+Name_Middle". These data element values must be identical to data element values 101-103 as specified for the individual in the INDIVIDUAL_ENTITY.

4. For phase one of the HTML pilot, the combination of last name, first name, and middle name must uniquely identify each individual referenced in the PROJECT_ENTITY.
5. The Project_Role (331) for the principal investigator must be specified as PI.
6. If an individual has multiple appointment types (e.g., an academic appointment identified by 9 months at 50% effort and a summer appointment identified by 2 months at 100 % effort), include multiple entries for that individual (see appendix B for example).

2.1.6 Supported RESEARCH_SUBJECT_GROUP_ENTITY Data Elements

The following table specifies the data elements in the RESEARCH_SUBJECT_GROUP_ENTITY supported by phase one of the HTML pilot system.

Table 2-6. Supported RESEARCH_SUBJECT_GROUP_ENTITY Data Elements

Sort #	Data Element Name	Data Type	Data Min Length	Data Max Length	Dupl	PHS 398 Counterpart (and related notes)
415	Exemption_Number	AN	1	4	No	*AA*, #4a
416	IRB_Approval_Date	DATE	8	8	No	*AA*, #4a
417	IRB_Full_Review	Y/N	1	1	No	*AA*, #4a
418	Assurance_of_Compliance_No	AN	3	9	No	*AA*, #4b

2.1.7 Supported ANIMAL_SUBJECTS_ENTITY Data Elements

The following table specifies the data elements in the ANIMAL_SUBJECTS_ENTITY supported by phase one of the HTML pilot system.

Table 2-7. Supported ANIMAL_SUBJECTS_ENTITY Data Elements

Sort #	Data Element Name	Data Type	Data Min Length	Data Max Length	Dupl	PHS 398 Counterpart (and related notes)
624	IACUC_Approval_Date	DATE	8	8	No	*AA*, #5a
625	Animal_Welfare_Assurance_No	AN	3	9	No	*AA*, #5b

2.1.8 Supported BUDGET_ENTITY Data Elements

The following table specifies the data elements in the BUDGET_ENTITY supported by phase one of the HTML pilot system.

Table 2-8. Supported BUDGET_ENTITY Data Elements for Phase One

Sort #	Data Element Name	Data Type	Data Min Length	Data Max Length	Dupl	PHS 398 Counterpart (and related notes)
701	Project_Year_Budget	AN	1	2	No	Indicate T (total budget), or 1-5 (budget year) See Notes 9-10.
703	Budget_Period_Length	NUM	1	2	No	Indicate number of months for the budget period. NIH will use 703 and 704 to calculate End Date (*DD*, Through).
704	Budget_Period_Start_Date	DATE	8	8	No	*DD*, (From)
709	Budget_Category_Indv_ID	AN	1	80	Yes	Use to link 712 (if applicable) and 722 to a person
710	Budget_Category_ID	ID	2	2	Yes	Use code to specify a budget item (see note 1).
711	Budget_Category_Desc	AN	1	80	Yes	Use to describe a budget item.
712	Budget_Category_Req_Amt	DOLLAR	1	9	Yes	Use to indicate the the dollar amount for 710.
722	Budget_Category_Rate_Base_Amt	DOLLAR	1	9	No	*DD*, (Inst Base Salary)
726	Budget_Category_Justification	AN	1	4M	No	*EE*, (Budget Justification)

NOTES:

1. 710 is a code which identifies a budget item. The following codes are used by the HTML pilot system:

   01 Labor (*DD*, Salary Requested) (also see notes 2-4).
   04 Subcontract (*DD, EE,* Consortium Costs).
   06 Labor Overhead (excludes fringe benefits).
   33 General and Administrative.
   38 Total Cost (also see notes 5-8)
   39 Other Costs (*DD, EE,* Other Expenses).
   42 Purchased Equipment (*DD, EE,* Equipment - itemized).
   43 Materials and Purchased Items (*DD, EE,* Supplies).
   46 Commercial Effort (costs associated with ancillary service contracts)

49 Employee Benefits (*DD*, Fringe Benefits) (also see notes 2-4).
52 Communications and Travel (*DD, EE,* Travel).
55 Facilities (cost of equipment maintenance).
71 Total Salaries and Employee Benefits (*EE,* Salary and Fringe Benefits).
72 Total Purchased Equipment (*DD, EE,* Equipment - total).
80 Publication Costs.
81 Consultant Services (*DD,EE,* Consultant Costs).
82 ADP Services.
84 Total Direct Costs (also see notes 5-8)
85 Human Subject Costs (*DD, EE,* Inpatient Costs).
86 Animal Costs.
87 Alterations and Renovations (*DD, EE,* Alterations and Renovations).
BL Billings (*DD, EE,* Outpatient Costs).
ZZ Lease (rent/lease of equipment/facilities).

2. When specifying the requested salary or fringe benefits for an individual, use 709 to identify the individual.

3. For phase one of the HTML pilot, use 709 to specify the individual's name, formatted as "Name_Last+Name_First+Name_Middle". These data element values must be identical to data element values 101-103 as specified for the individual in the INDIVIDUAL_ENTITY.

4. For phase one of the HTML pilot, the combination of last name, first name, and middle name must uniquely identify each individual referenced in the BUDGET_ENTITY.

5. To indicate Total Direct Costs for Initial Budget (AA, #7a), set 701 to "1", set 710 to "84", and set 712 to the dollar amount.

6. To indicate Total Costs for Initial Budget (AA, #7b), set 701 to "1", set 710 to "38", and set 712 to the dollar amount.

7. To indicate Total Direct Costs (AA, #8a), set 701 to "T", set 710 to "84", and set 712 to the dollar amount.

8. To indicate Total Costs (AA, #8b), set 701 to "T", set 710 to "38", and set 712 to the dollar amount.

9. When 701 is "T", only specify data elements 726 and 710 (codes "84" and "38").

10. Every item identified in the budget must be associated with aProject_Year_Budget (701).

11. NIH will calculate all totals and subtotals (except those identified in notes 5-8).

2.1.9 Data Element Rules

There are certain rules and restrictions when specifying the*value* portion of data elements. These rules and restrictions are listed below.

1. Spaces are specified with the character "+". For example, the name "Winnie the Pooh" is represented as "Winnie+the+Pooh".
2. When specifying numerical data elements, special formatting characters must not be included. For example, telephone numbers must not contain parentheses or dashes, and social security numbers, DUNS numbers, and 9-digit zip codes must not contain dashes.
3. Monetary amounts must not contain the dollar sign.
4. The "&", "+", and ";" are special characters. To represent them as text in the data element *value* portion, they must be specified as follows (Note that when determining the length of the *value* portion, each special character is counted as one character, despite its multi-character representation.):

Table 2-9. Specifying Special Characters in Data Stream

Character	Specification in Data Stream
&	&amp;
<	<
>	>
"	"
+	&43;
;	&59;

Also note that the *key* portion of data element key/value pairs is not case sensitive.

2.2 Grammar Rules

Section 2.1 provides the information necessary to specify any single data element supported by phase one of the HTML pilot system. This section provides the rules for specifying a sequence of data elements as an HTML-formatted data stream.

2.2.1 Basic Rules

There are 5 basic rules for combining data elements into an HTML-formatted data stream.

1. The HTML-formatted data stream is a continuous sequence of data elements; no white space is permitted between data elements.

2. All data elements must appear within an entity.
3. Entities can appear in any order.
4. Data elements comprising an entity can appear in any order.
5. The delimiter between data elements is the character "&".

2.2.2 Specifying Entities and Data Elements With Multiple Values

To better understand how multi-valued data elements are handled within an HTML-formatted data stream, the entities must again be viewed as tables in a relational database. The set of data elements that comprise an entity are then represented as a row in that table. A problem arises, however, when a data element is permitted multiple values. To address this problem this section defines the procedure for specifying the beginning and ending of entities (i.e., tables), and for unambiguously representing data elements that are permitted multiple values.

The procedure, called the *Ordered / Boundary Method* [3] uses the tags BEGIN and END to delineate tables, and the tag NEXT to delineate rows within a table. For example, given the following data elements in INDIVIDUAL_ENTITY table[1]:

Table 2-10. Example Table for BEGIN, NEXT, and END Tags

Name_Last	Name_First	Degree_Description	Degree_Date	Social_Security_Number/ID
Galilei	Galileo	PhD	5/85	111-11-1111
Copernicus	Nicholas	PhD	5/92	123-45-6789

the resulting HTML-formatted data stream is:

```
BEGIN=INDIVIDUAL_ENTITY
        &Social_Security_Number/ID=111111111
        &Name_Last=Galilei
        &Name_First=Galileo
        &Degree_Date=05011985
        &Degree_Description=PhD
&NEXT=INDIVIDUAL_ENTITY
        &Social_Security_Number/ID=123456789
        &Name_Last=Copernicus
        &Name_First=Nicholas
        &Degree_Date=05011992
        &Degree_Description=PhD
&END=INDIVIDUAL_ENTITY
```

[1] Note that NIH only captures degree information for the PI. This example specifies degree information for two individuals, however, to illustrate the Ordered / Boundary Method.

Note that the HTML-formatted data stream would be one continuous stream. The above formatting is provided only for readability.

For the PI, additional degrees can be specified. For this next example, assume that Galileo is the PI, and three degrees are referenced.

Table 2-11. Example Table for Multiple Degrees

Name_Last	Name_First	Degree_Description	Degree_Date	Social_Security _Number/ID
Galilei	Galileo	BS, MS, PhD	6/77, 12/80, 5/85	111-11-1111
Copernicus	Nicholas	PhD	5/92	123-45-6789

The resulting HTML-formatted data stream becomes:

```
BEGIN=INDIVIDUAL_ENTITY
        &Social_Security_Number/ID=111111111
        &Name_Last=Galilei
        &Name_First=Galileo
        &Degree_Date=06011977
        &Degree_Description=BS
&NEXT=INDIVIDUAL_ENTITY
        &Social_Security_Number/ID=111111111
        &Degree_Date=12011980
        &Degree_Description=MS
&NEXT=INDIVIDUAL_ENTITY
        &Social_Security_Number/ID=111111111
        &Degree_Date=05011985
        &Degree_Description=PhD
&NEXT=INDIVIDUAL_ENTITY
        &Social_Security_Number/ID=123456789
        &Name_Last=Copernicus
        &Name_First=Nicholas
        &Degree_Date=05011992
        &Degree_Description=PhD
&END= INDIVIDUAL_ENTITY
```

Again, the formatting is provided only for readability.

The points being highlighted in this second example are:

1. The Degree_Description and Degree_Date (using 01 as the *day* value) data elements in the INDIVIDUAL_ENTITY have three values each.
2. Three rows are required to specify the three degree values (one degree per row). This maintains the proper relationship between the Degree_Description and Degree_Date.
3. Each row contains the data element Social_Security_Number/ID, which links the degree-related data elements to the appropriate individual.

2.2.3 Linking Data Elements

For phase one of the HTML pilot system, there are only a limited number of scenarios which require data elements to be linked. This section identifies these scenarios.

1. *INDIVIDUAL_ENTITY*. Multiple Degree_Description (141) values can be specified for the PI. 106 is used to link the Degree_Description data element with the appropriate individual.

2. *ORGANIZATION_ENTITY*. The APPLICATION_ENTITY only permits identifying the DUNS number for the submitting organization. All other information pertinent to the organization must be specified in the ORGANIZATION_ENTITY. Organization_DUNS (201) is used to link data elements in the ORGANIZATION_ENTITY with the submitting organization identified in the APPLICATION_ENTITY.

3. *PROJECT_ENTITY*. For each individual identified in the PROJECT_ENTITY, the Project_Role (331), Level_of_Effort (332), and Appointment_Months (333) can be specified. Participating_Ind_SSN/ID/or_Name (330) is used to link these data elements to the appropriate individual.

4. *BUDGET_ENTITY*. For each individual identified in the BUDGET_ENTITY, the requested salary (710, code 01), fringe benefits (710, code 49), and Budget_Category_Rate_Base_Amt (722) can be specified. Budget_Category_Indv_ID (709) is used to link these data elements to the appropriate individual.

3. Communicating With the HTML Pilot System

Grantee organizations must transmit HTML-formatted data streams to the HTML pilot system as HTTP file uploads. To upload a file containing an HTML-formatted data stream, NIH has provided a file upload form. This form can be accessed from the following Uniform Resource Locator (URL):

http://206.241.19.6:443/edi-dev-cgi/uploader.pl

The form contains instructions, one text box, and three buttons. The user enters the complete path and file name of the file containing the HTML-formatted data stream in the text box. A *Browse* button is included to enable the user to search and select the file from the local file system. Once the file is specified, the user can submit the form (via the *Submit* button) or clear the form (via the *Clear Entries* button).

Note that only one application is permitted per HTML-formatted data stream.

Appendix A: Sample PHS 398 Form

This appendix provides pages AA, BB, DD, and EE of the PHS 398. The test data used to complete is form is represented as an HTML-formatted data stream in appendix B.

AA

Form Approved Through 9/30/97
OMB No. 0925-0001

Department of Health and Human Services
Public Health Services

Grant Application

Follow instructions carefully.
Do not exceed character length restrictions indicated on sample.

LEAVE BLANK—FOR PHS USE ONLY.

Type	Activity	Number
Review Group	Formerly	
Council/Board *(Month, Year)*		Date Received

1. TITLE OF PROJECT *(Do not exceed 56 characters, including spaces and punctuation.)*
Atherosclerosis Prevention Study

2. RESPONSE TO SPECIFIC REQUEST FOR APPLICATIONS OR PROGRAM ANNOUNCEMENT x NO YES *(If "Yes," state number and title)*
Number: Title:

3. PRINCIPAL INVESTIGATOR/PROGRAM DIRECTOR

3a. NAME *(Last, first, middle)*
Galilei, Galileo, N.

3b. DEGREE(S)
B.S., M.D.

3c. SOCIAL SECURITY NO.
123-45-6789

3d. POSITION TITLE
Assistant Professor

3e. MAILING ADDRESS *(Street, city, state, zip code)*
University of Bethesda
Atherosclerosis Research Unit
461 Ocean Blvd, CSC-32
Bethesda, MD 20892

3f. DEPARTMENT, SERVICE, LABORATORY, OR EQUIVALENT
MDK

3g. MAJOR SUBDIVISION
01

3h. TELEPHONE AND FAX *(Area code, number and extension)*
TEL: (301) 555 1478
FAX: (301) 555 2685

E-MAIL ADDRESS:
ggalileo@ub.edu

4. HUMAN SUBJECTS	4a. If "Yes," Exemption no. **or** IRB approval date	4b. Assurance of compliance no.	5. VERTEBRATE ANIMALS	5a. If "Yes," IACUC approval date	5b. Animal welfare assurance no.
No	☐ Full IRB **or**	M123456XB	No		
x Yes	Pending ☐ Expedited Review		x Yes	02/01/94	A9999-01

6. DATES OF PROPOSED PERIOD OF SUPPORT *(month, day, year—MM/DD/YY)*		7. COSTS REQUESTED FOR INITIAL BUDGET PERIOD		8. COSTS REQUESTED FOR PROPOSED PERIOD OF SUPPORT	
From	Through	7a. Direct Costs ($)	7b. Total Costs ($)	8a. Direct Costs ($)	8b. Total Costs ($)
04/01/95	04/01/97	$470,757	$470,757	$1,098,404	$1,098,404

9. APPLICANT ORGANIZATION
Name IPF # 1234567
Address DUNS # 112233445

10. TYPE OF ORGANIZATION
Public: → Federal State Local
Private: → x Private Nonprofit
Forprofit: → General Small Business

11. ORGANIZATIONAL COMPONENT CODE 01

12. ENTITY IDENTIFICATION NUMBER
0123454321A1

Congressional District

13. ADMINISTRATIVE OFFICIAL TO BE NOTIFIED IF AWARD IS MADE
Name Tycho H. Brahe
Title Deputy Director
Address Dept of Contracts and Grants
1313 Mockingbird Lane, DEI-5555
Bethesda, MD 20892
Telephone (301) 555 2396
FAX (301) 555 2835
E-Mail Address tbrahe@munster.ub.edu

14. OFFICIAL SIGNING FOR APPLICATION ORGANIZATION
Name Giordano Bruno Jr.
Title Provost & Senior VP for Academic Affairs
Address Dept of Contracts and Grants
1313 Mockingbird Lane, DEI-5555
Bethesda, MD 20892
Phone (301) 555 2396
FAX (301) 555 2835
E-Mail Address

15. PRINCIPAL INVESTIGATOR/PROGRAM DIRECTOR ASSURANCE:
I certify that the statements herein are true, complete and accurate to the best of my knowledge. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. I agree to accept responsibility for the scientific conduct of the project and to provide the required progress reports if a grant is awarded as a result of this application.

SIGNATURE OF PI/PD NAMED IN 3a. *(In ink. "Per" signature not acceptable.)*

DATE
06/02/94

16. APPLICATION ORGANIZATION CERTIFICATION AND ACCEPTANCE:
I certify that the statements herein are true, complete and accurate to the best of my knowledge, and accept the obligation to comply with Public Health Services terms and conditions if a grant is awarded as a result of this application. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties.

SIGNATURE OF OFFICIAL NAMED IN 14. . *(In ink. "Per" signature not acceptable.)*

DATE
06/02/94

DESCRIPTION: State the application's broad, long-term objectives and specific aims, making reference to the health relatedness of the project. Describe concisely the research design and methods for achieving these goals. Avoid summaries of past accomplishments and the use of the first person. This abstract is meant to serve as a succinct and accurate description of the proposed work when separated from the application. If the application is funded, this description, as is, will become public information. Therefore, do not include proprietary/confidential information. **DO NOT EXCEED THE SPACE PROVIDED.**

This is where the abstract would go.

PERFORMANCE SITE(S) *(organization, city, state)*

University of Bethesda, Bethesda, MD
Pharmacology Research Laboratory,Bethesda, MD

KEY PERSONNEL. See instructions on Page 11. *Use continuation pages as needed* to provide the required information in the format shown below.

Name	Organization	Role on Project
Copernicus, Nicholas	University of Bethesda	Co-Principal Investigator
Newton, Isaac	University of Bethesda	Co-Investigator

DETAILED BUDGET FOR INITIAL BUDGET PERIOD
DIRECT COSTS ONLY

FROM 04/01/95 THROUGH 04/01/96

PERSONNEL *(Applicant organization only)* NAME	ROLE ON PROJECT	TYPE APPT. *(months)*	% EFFORT ON PROJ.	INST. BASE SALARY	DOLLAR AMOUNT REQUESTED *(omit cents)* SALARY REQUESTED	FRINGE BENEFITS	TOTAL
Galilei, Galileo	Principal Investigator	12	40	$110,000	$44,000	$13,772	$57,772
Copernicus, Nicholas	Co-Principal Investigator	9	20	$119,719	$11,972	$3,747	$15,719
Copernicus, Nicholas	Co-Principal Investigator	2	100	$119,719	$26,602	$8,326	$34,928
Newton, Isaac	Co-Investigator	12	10	$125,000	$0	$0	$0
Keplar, Johannes	Data Clerk	12	50	$25,331	$12,666	$3,964	$16,630
TBD	Nurse Manager	12	100	$35,000	$35,000	$10,955	$45,955
TBD	Technician	12	100	$32,000	$32,000	$9,600	$41,600
TBD	Technician	12	100	$36,000	$36,000	$10,800	$46,800
	SUBTOTALS →				$198,240	$61,164	$259,404

CONSULTANT COSTS		$22,400
EQUIPMENT *(Itemize)* Single cell Perfusion Chambers and Filter Sets $5,500 Centrifuge $15,000		$20,500
SUPPLIES *(Itemize by category)*		$5,400
TRAVEL		$4,000
PATIENT CARE COSTS	INPATIENT	$3,500
	OUTPATIENT	$84,720
ALTERATIONS AND RENOVATIONS *(Itemize by category)*		$28,750
OTHER EXPENSES *(Itemize by category)* Equipment Maintenance $1,183; Publication Costs $1,500; Animal Costs $4,400; Other Expenses $35,000		$42,083
SUBTOTAL DIRECT COSTS FOR INITIAL BUDGET PERIOD		**$** $470,757
CONSORTIUM/CONTRACTUAL COSTS	DIRECT COSTS	
	INDIRECT COSTS	
TOTAL DIRECT COSTS FOR INITIAL BUDGET PERIOD *(Item 7a, Face Page)* →		**$** $470,757

BUDGET FOR ENTIRE PROPOSED PROJECT PERIOD
DIRECT COSTS ONLY

BUDGET CATEGORY TOTALS		INITIAL BUDGET PERIOD *(from Form Page 4)*	ADDITIONAL YEARS OF SUPPORT REQUESTED 2nd	3rd	4th	5th
PERSONNEL: *Salary and fringe benefits Applicant organization only*		$259,404	$465,898			
CONSULTANT COSTS		$22,400	$23,296			
EQUIPMENT		$20,500				
SUPPLIES		$5,400	$5,616			
TRAVEL		$4,000	$4,098			
PATIENT CARE COSTS	INPATIENT	$3,500				
	OUTPATIENT	$84,720	$87,648			
ALTERATIONS AND RENOVATIONS		$28,750				
OTHER EXPENSES		$42,083	$41,091			
SUBTOTAL DIRECT COSTS		$470,757	$627,647			
CONSORTIUM/ CONTRACTUAL COSTS	DIRECT					
	INDIRECT					
TOTAL DIRECT COSTS		$470,757	$627,647			

TOTAL DIRECT COSTS FOR ENTIRE PROPOSED PROJECT PERIOD *(Item 8a, Face Page)* → **$ 1,098,404**

JUSTIFICATION. Follow the budget justification instructions exactly. Use continuation pages as needed.

This is where the budget justification would go.

Appendix B: HTML-Formatted Data Stream for Sample 398 Data

This appendix provides the HTML-formatted data stream for the sample data presented in appendix A. Although the HTML-formatted data stream should be one continuous stream, new lines and tabs are inserted for readability.

```
BEGIN=APPLICATION_ENTITY
        &Submitting_Organization_DUNS=112233445
        &Fed_Agncy_ID_for_Sub_Org=1234567
        &Application_Type=S4
        &Application_Date=06021994
        &Auth_Off_Name_Last=Bruno
        &Auth_Off_Name_First=Giordano
        &Auth_Off_Name_Suffix=Jr.
        &Auth_Off_Street_Address1=Dept+of+Contracts+and+Grants
        &Auth_Off_Street_Address2=1313+Mockingbird+Lane+DEI-5555
        &Auth_Off_City=Bethesda
        &Auth_Off_State=MD
        &Auth_Off_Zip=20892
        &Auth_Off_Title=Provost+&amp;amp;+Senor+VP+for+Academic+Affairs
        &Auth_Off_Telephone_Number=3015552396
        &Auth_Off_Facsimile_Number=3015552835
        &Admin_Off_Name_Last=Brahe
        &Admin_Off_Name_First=Tycho
        &Admin_Off_Name_Middle=H
        &Admin_Off_Street_Address1=Dept+of+Contracts+and+Grants
        &Admin_Off_Street_Address2=1313+Mockingbird+Lane+DEI-5555
        &Admin_Off_City=Bethesda
        &Admin_Off_State=MD
        &Admin_Off_Zip=20892
        &Admin_Off_Title=Deputy+Director
        &Admin_Off_Telephone_Number=3015552396
        &Admin_Off_Facsimile_Number=3015552835
        &Admin_Off_Email_Address=tbrahe@munster.ub.edu
&END=APPLICATION_ENTITY

&BEGIN=INDIVIDUAL_ENTITY
        &Name_Last=Galilei
        &Name_First=Galileo
        &Name_Middle=N
        &Social_Security_Number/ID=123456789
        &Emp_Org_Duns=112233445
        &Emp_Org_Name1=University+of+Bethesda
        &Emp_Org_Address1=Atherosclerosis+Research+Unit
```

&Emp_Org_Address2=461+Ocean+Blvd.,+CSC-32
&Emp_Org_City=Bethesda
&Emp_Org_State/Province=MD
&Emp_Org_Zip/Postal_Code=20892
&Emp_Org_Maj_Subdiv=01
&Emp_Org_Department=MDK
&Position_Title=Assistant+Professor
&Telephone_Number=3015551478
&Facsimile_Number=3015552685
&Email_Address=ggalileo@ub.edu
&Degree_Description=BS
&NEXT= INDIVIDUAL_ENTITY
&Social_Security_Number/ID=123456789
&Degree_Description=MD
&NEXT= INDIVIDUAL_ENTITY
&Name_Last=Copernicus
&Name_First=Nicholas
&Emp_Org_Name1=University+of+Bethesda
&NEXT= INDIVIDUAL_ENTITY
&Name_Last=Newton
&Name_First=Isaac
&Emp_Org_Name1=University+of+Bethesda
&NEXT= INDIVIDUAL_ENTITY
&Name_Last=Keplar
&Name_First=Johannes
&NEXT= INDIVIDUAL_ENTITY
&Name_Last=TBD1
&NEXT= INDIVIDUAL_ENTITY
&Name_Last=TBD2
&NEXT= INDIVIDUAL_ENTITY
&Name_Last=TBD3
&END=INDIVIDUAL_ENTITY

&BEGIN=ORGANIZATION_ENTITY
&Organization_DUNS=112233445
&Organization_Type=A8
&Employer’s_Identification_Number=0123454321A1
&NEXT= ORGANIZATION_ENTITY
&Organization_Name2=University+of+Bethesda
&Organization_City=Bethesda
&Organization_State/Province=MD
&NEXT= ORGANIZATION_ENTITY
&Organization_Name2=Pharmacology+Research+Laboratory
&Organization_City=Bethesda
&Organization_State/Province=MD

```
&END=ORGANIZATION_ENTITY

&BEGIN=PROJECT_ENTITY
        &Project_Title=Atherosclerosis+Prevention+Study
        &Duration=24
        &Estimated_Start_Date=04011995
        &Project_Abstract=This+is+where+the+abstract+would+go.
        &Participating_Ind_SSN/ID/or_Name=Galilei+Galileo
        &Project_Role=PI
        &Level_of_Effort=40
        &Appointment_Months=12
&NEXT=PROJECT_ENTITY
        &Participating_Ind_SSN/ID/or_Name=Copernicus+Nicholas
        &Project_Role=Co-Principal+Investigator
        &Level_of_Effort=20
        &Appointment_Months=9
&NEXT=PROJECT_ENTITY
        &Participating_Ind_SSN/ID/or_Name=Copernicus+Nicholas
        &Project_Role=Co-Principal+Investigator
        &Level_of_Effort=100
        &Appointment_Months=2
&NEXT=PROJECT_ENTITY
        &Participating_Ind_SSN/ID/or_Name=Newton+Isaac
        &Project_Role=Co-Investigator
        &Level_of_Effort=10
        &Appointment_Months=12
&NEXT=PROJECT_ENTITY
        &Participating_Ind_SSN/ID/or_Name=Keplar+Johannes
        &Project_Role=Data+Clerk
        &Level_of_Effort=50
        &Appointment_Months=12
&NEXT=PROJECT_ENTITY
        &Participating_Ind_SSN/ID/or_Name=TBD1
        &Project_Role=Nurse+Manager
        &Level_of_Effort=100
        &Appointment_Months=12
&NEXT=PROJECT_ENTITY
        &Participating_Ind_SSN/ID/or_Name=TBD2
        &Project_Role=Technician
        &Level_of_Effort=100
        &Appointment_Months=12
&NEXT=PROJECT_ENTITY
        &Participating_Ind_SSN/ID/or_Name=TBD3
        &Project_Role=Technician
        &Level_of_Effort=100
```

```
        &Appointment_Months=12
&END=PROJECT_ENTITY

&BEGIN=RESEARCH_SUBJECT_GROUP_ENTITY
        &Assurance_of_Compliance_No=M123456XB
&END=RESEARCH_SUBJECT_GROUP_ENTITY

&BEGIN=ANIMAL_SUBJECTS_ENTITY
        &IACUC_Approval_Date=02011994
        &Animal_Welfare_Assurance_No=A9999-01
&END=ANIMAL_SUBJECTS_ENTITY

&BEGIN=BUDGET_ENTITY
        &Project_Year_Budget=T
        &Budget_Category_ID=38
        &Budget_Category_Req_Amt=1098404
        &Budget_Category_Justification=This+is+where+the+budget+justification
                                        +would+go.
&NEXT=BUDGET_ENTITY
        &Project_Year_Budget=T
        &Budget_Category_ID=84
        &Budget_Category_Req_Amt=1098404
&NEXT=BUDGET_ENTITY
        &Project_Year_Budget=1
        &Budget_Period_Start_Date=04011995
        &Budget_Period_Length=12
        &Budget_Category_ID=38
        &Budget_Category_Req_Amt=470757
&NEXT=BUDGET_ENTITY
        &Budget_Category_ID=84
        &Budget_Category_Req_Amt=470757
        &Project_Year_Budget=1
&NEXT=BUDGET_ENTITY
        &Project_Year_Budget=1
        &Budget_Category_ID=81
        &Budget_Category_Req_Amt=22400
&NEXT=BUDGET_ENTITY
        &Project_Year_Budget=1
        &Budget_Category_ID=42
        &Budget_Category_Desc=Centrifuge
        &Budget_Category_Req_Amt=15000
&NEXT=BUDGET_ENTITY
        &Project_Year_Budget=1
        &Budget_Category_ID=42
        &Budget_Category_Desc=Single+Cell+Profusion+Chambers+and+Filter+Sets
```

&Budget_Category_Req_Amt=5500
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_ID=43
&Budget_Category_Req_Amt=5400
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_ID=52
&Budget_Category_Req_Amt=4000
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_ID=85
&Budget_Category_Req_Amt=3500
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_ID=BL
&Budget_Category_Req_Amt=84720
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_ID=87
&Budget_Category_Req_Amt=28750
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_ID=55
&Budget_Category_Req_Amt=1183
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_ID=80
&Budget_Category_Req_Amt=1500
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_ID=86
&Budget_Category_Req_Amt=4400
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_ID=39
&Budget_Category_Req_Amt=35000
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_Indv_ID=Galilei+Galileo+N
&Budget_Category_Rate_Base_Amt=110000
&Budget_Category_ID=01
&Budget_Category_Req_Amt=44000
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1

&Budget_Category_Indv_ID=Galilei+Galileo+N
&Budget_Category_ID=49
&Budget_Category_Req_Amt=13772
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_Indv_ID=Copernicus+Nicholas
&Budget_Category_Rate_Base_Amt=119719
&Budget_Category_ID=01
&Budget_Category_Req_Amt=11972
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_Indv_ID=Copernicus+Nicholas
&Budget_Category_ID=49
&Budget_Category_Req_Amt=3747
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_Indv_ID=Copernicus+Nicholas
&Budget_Category_ID=01
&Budget_Category_Req_Amt=26602
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_Indv_ID=Copernicus+Nicholas
&Budget_Category_ID=49
&Budget_Category_Req_Amt=8326
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_Indv_ID=Newton+Isaac
&Budget_Category_Rate_Base_Amt=125000
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_Indv_ID=Keplar+Johannes
&Budget_Category_Rate_Base_Amt=25331
&Budget_Category_ID=01
&Budget_Category_Req_Amt=12666
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_Indv_ID=Keplar+Johannes
&Budget_Category_ID=49
&Budget_Category_Req_Amt=3964
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_Indv_ID=TBD1
&Budget_Category_Rate_Base_Amt=35000
&Budget_Category_ID=01
&Budget_Category_Req_Amt=35000

&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_Indv_ID=TBD1
&Budget_Category_ID=49
&Budget_Category_Req_Amt=10955
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_Indv_ID=TBD2
&Budget_Category_Rate_Base_Amt=32000
&Budget_Category_ID=01
&Budget_Category_Req_Amt=32000
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_Indv_ID=TBD2
&Budget_Category_ID=49
&Budget_Category_Req_Amt=9600
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_Indv_ID=TBD3
&Budget_Category_Rate_Base_Amt=36000
&Budget_Category_ID=01
&Budget_Category_Req_Amt=36000
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=1
&Budget_Category_Indv_TDB3
&Budget_Category_ID=49
&Budget_Category_Req_Amt=10800
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=2
&Budget_Period_Start_Date=04011996
&Budget_Period_Length=12
&Budget_Category_ID=84
&Budget_Category_Req_Amt=627647
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=2
&Budget_Category_ID=71
&Budget_Category_Req_Amt=465898
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=2
&Budget_Category_ID=81
&Budget_Category_Req_Amt=23296
&NEXT=BUDGET_ENTITY
&Project_Year_Budget=2
&Budget_Category_ID=43
&Budget_Category_Req_Amt=5616

```
&NEXT=BUDGET_ENTITY
        &Project_Year_Budget=2
        &Budget_Category_ID=52
        &Budget_Category_Req_Amt=4098
&NEXT=BUDGET_ENTITY
        &Project_Year_Budget=2
        &Budget_Category_ID=BL
        &Budget_Category_Req_Amt=87648
&NEXT=BUDGET_ENTITY
        &Project_Year_Budget=2
        &Budget_Category_ID=39
        &Budget_Category_Req_Amt=41091
&END=BUDGET_ENTITY
```